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(54) Title: **RACEMOSELECTIVE PREPARATION OF BRIDGED METALLOCENE COMPLEXES HAVING UNSUBSTITUTED OR 2-SUBSTITUTED INDENYL LIGANDS**

(57) Abstract: The invention relates to a process for preparing racemic metallocene complexes by reacting transition metal complexes with cyclopentadienyl derivatives of alkali metals or alkaline earth metals and heating the reaction mixture obtained in this way to a temperature in the range from -78 to 250 °C, to the corresponding metallocene complexes themselves and to their use as catalysts or as constituents of catalysts for the polymerization of olefinically unsaturated compounds or as reagents or catalysts in stereoselective synthesis.

WO 2004/037834 A3

## PATENT COOPERATION TREATY

PCT

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## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference LU6059/CB	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 03/11678	International filing date (day/month/year) 22/10/2003	(Earliest) Priority Date (day/month/year) 25/10/2002
Applicant  BASELL POLYOLEFINE GMBH		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

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2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/11678

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C08F4/60 C08F4/64 C07F17/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

CHEM ABS Data, PAJ, EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	EP 1 275 662 A (SUMITOMO CHEMICAL CO) 15 January 2003 (2003-01-15) see whole document and especially the definition for substituents X paragraphs '0193!', '0195!	1-16
X	& WO 02/051878 A (SUMITOMO CHEM CO LTD) 4 July 2002 (2002-07-04) ---	1-16
X	EP 0 997 480 A (MARUZEN PETROCHEM CO LTD) 3 May 2000 (2000-05-03) paragraphs '0011!', '0019!', '0028! --- -/--	1-16



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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\*&\* document member of the same patent family

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## INTERNATIONAL SEARCH REPORT

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WARTCHOW, RUDOLF ET AL: "Synthesis and characterization of rac-'ethylene-1,2-bis(.eta.5-4,5,6,7-tetrahydro-1-indenyl)!zirconium bisamides (EBTHI)Zr(NHR)2" JOURNAL OF ORGANOMETALLIC CHEMISTRY (1998), 566(1-2), 287-291 , XP004139820 ISSN: 0022-328X compound 3a ---	3-5,7,9, 16
A	WO 02/00672 A (BASELL POLYOLEFINE GMBH) 3 January 2002 (2002-01-03) the whole document ---	1-16
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Information on patent family members

International Application No

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